

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0004] with the following amended paragraph.

[0004] Under such conditions, inducers in LNG pumps need to be capable of developing sufficient head (pressure) to compress these vapors sufficiently for reabsorption into the liquid in a hydrodynamically stable way. Otherwise, it is a well known fact that the pump discharge pressure fluctuates when a column of vapor enters the pump inlet that is not fully reabsorbed. The presence of such fluctuations can cause vibration that can shorten pump life.

Please replace paragraph [0014] with the following amended paragraph.

[0014] An inducer impeller for pumping a two phase fluid from a cryogenic storage system includes a hub which increases in diameter from a first portion to a second portion. Plural, axially extending primary blades each has have a leading edge extending radially and axially from the hub. Axially extending secondary blades are circumferentially disposed about the hub such that one of the secondary blades is interposed between two adjacent primary blades. An outer diameter of each primary blade and each secondary blade is generally constant from a leading edge to a trailing edge of such primary and such secondary blades.

Please replace paragraph [0030] with the following amended paragraph.

[0030] Referring now to FIGURES 2-4, wherein the showings drawings illustrate a preferred embodiment of the invention only and are not intended to limit same, FIGURE 2 illustrates an inducer 100, which as noted above, can be incorporated in the pump and motor unit 10 for a pumping system for pressurized cryogenic gas storage reservoirs. The inducer of the present invention overcomes the problems associated with air so that once the pumped two phase medium has passed part way through the inducer the medium is a single phase liquid. This is achieved with the inducer design illustrated in FIGURES 2-4 and described herein.

Please replace paragraph [0031] with the following amended paragraph.

[0031] More particularly, a central hub 110 of the inducer includes an opening 112 therethrough to secure the inducer to the drive shaft 14 extending from the motor 12. The first end of the hub has a rounded end (i.e., no sharp edges or contours) and a curvilinear conformation that proceeds from the end as best seen in FIGURES 2 and 3, extending both generally radially outward from the shaft and extending axially therealong. The hub extends from a recess 114 formed in the end and curves outwardly to a first generally constant diameter hub portion 116. Leading edges of first, second, and third helical blades 120a-120c extend radially and axially outward from the hub - particularly extending from the constant diameter portion thereof. As will be appreciated, the leading edges 122a-122c corresponding to each of the blades ~~is~~ are circumferentially spaced approximately 120° from the leading edge of the next adjacent blade. The thicknesses of the blades increases or tapers from the leading edges 122a-122c to a substantially constant thickness over the remainder of the blades represented by reference numerals 124a-124c, proceeding to respective trailing edges 126a-126c. As is perhaps best represented in FIGURES 2 and 3, each blade is identical to the other blades and extends circumferentially approximately 180° from the leading edge 122a-122c to the respective trailing edge 126a-126c. Each blade has a helical or spiral conformation as it extends circumferentially about the hub and also extends axially from the generally constant diameter portion 116 of the hub toward an enlarged diameter portion of the hub 130 (FIGURES 3 and 4). As will be appreciated, the hub increases in diameter between the first or leading ends of the blades and the second or axially spaced trailing ends thereof. Stated another way, the hub contour is not simply a constant taper, and advantageously does not incorporate any sharp edges over its length.

Please replace paragraph [0032] with the following amended paragraph.

[0032] Interposed between the three primary blades 120 are secondary or splitter blades. The splitter blades are situated to "carry" more flow through the inducer. Thus, by the time flow has reached the trailing end of the inducer, it is being pumped by six blades rather than the three original blades at the inlet end. The primary blades have a

greater twist to aid in compressing the vapor and this increased twist also provides greater spacing in an axial direction (i.e., parallel or along the rotational axis) that accommodates the splitter blades. As noted, three splitter blades 150a, 150b, 150c are provided, one between each of the primary blades. Each splitter blade 150a-150c has a tapering leading edge 152a-152c and a trailing edge 156a-156c. As perhaps best exemplified in FIGURES 2 and 4, the leading edges 152 of the splitter blades are circumferentially spaced about 60° from the leading edges 122 of the primary blades. ~~Each of the splitter blades also has a tapering leading edge 152a-152c that merges into a more substantially constant thickness over the remaining circumferential extent of the blade profile, represented by reference numerals 154a-154c.~~ The circumferential extent from the leading edge 152 to the trailing edge 156 of each splitter blade is approximately 150°.

Please replace paragraph [0035] with the following amended paragraph.

[0035] The depth of the blade, i.e., the dimension of the blade measured in a generally radial direction from the hub out to the outer diameter edge of the blade is also quite different in accordance with the present invention. Whereas a mixed flow pump will typically have an increasing blade depth at the trailing edge or outlet compared to than the depth at the leading edge or inlet, such is not the case in the present invention. Here, the depth of the blade measured from the hub to the tip is substantially greater at the inlet than at the outlet (see FIGURE 3). The outer diameter of the blade is essentially unchanged from the leading edge to the trailing edge, but since the hub diameter increases from the leading or inlet end to the trailing or outlet end, the depth of the blades decreases over this axial extent. As noted above, this configuration also contributes to the improved vapor-to-liquid pumping ratio of the inducer assembly.